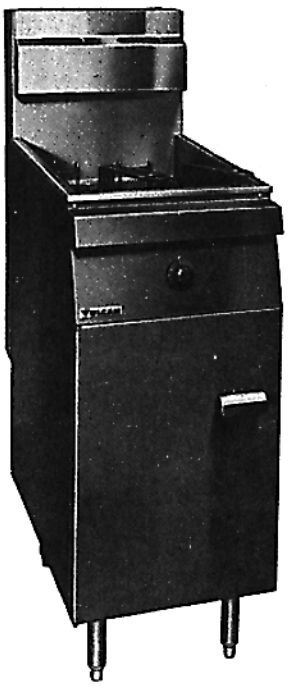
VULCAN

INSTALLATION, SERVICE & PARTS MANUAL FOR

CROWN DELUXE FRYERS MODELS: 7494 & 7495

& RESTAURANT FRYERS MODELS: 7594 & 7595



Restaurant Fryer
7500 Series

Crown Fryer
7400 Series

VULCAN-HART CORPORATION, 3600 NORTH POINT BLVD., BALTIMORE, MD 21222, TEL. (301) 284-0660
TECHNICAL ASSISTANCE: 800-626-2700

IMPORTANT

OPERATING, INSTALLATION AND SERVICE PERSONNEL

Operating information for this equipment has been prepared for use by qualified and/or authorized operating personnel.

All installation and service on this equipment is to be performed by qualified, certified, licensed and/or authorized installation or service personnel, with the exception of any marked with a □ in front of the part number.

Service may be obtained by contacting the Factory Service Department, Factory Representative or Local Service Agency.

DEFINITIONS

QUALIFIED AND/OR AUTHORIZED OPERATING PERSONNEL

Qualified or authorized operating personnel are those who have carefully read the information in this manual and are familiar with the equipment's functions or have had previous experience with the operation of the equipment covered in this manual.

QUALIFIED INSTALLATION PERSONNEL

Qualified installation personnel are individuals, a firm, corporation or company which either in person or through a representative are engaged in, and are responsible for:

1. The installation of gas piping from the outlet side of the gas meter, or the service regulator when the meter is not provided, and the conneciton and installation of the gas appliance. Qualified installation personnel must be experienced in such work, be familiar with all precautions required, and have complied with all requirements of state or local authorities having jurisdiction. Reference in the United States of America - National Fuel Gas code ANSI Z223.1 (Latest Edition). In Canada-Canadian Standard CAN1-B149.1 NAT. GAS (Latest Edition) or CAN1-B149.2 PROPANE (Latest Edition).
2. The installation of electrical wiring from the electric meter, main control box or service outlet to the electric appliance. Qualified installation personnel must be experienced in such work, be familiar with all precautions required, and have complied with all requirements of state or local authorities having jurisdiction. Reference: In the United States of America-National Electrical Code ANSI NFPA No. 70 (Latest Edition). In Canada-Canadian Electrical Code Part 1 CSA-C22.1 (Latest Edition).

QUALIFIED SERVICE PERSONNEL

Qualified service personnel are those who are familiar with Vulcan equipment who have been endorsed by the Vulcan-Hart Corporation. All authorized service personnel are required to be equipped with a complete set of service parts manuals and stock a minimum amount of parts for Vulcan equipment.

SHIPPING DAMAGE CLAIM PROCEDURE

For your protection, please note that equipment in this shipment was carefully inspected and packed by skilled personnel before leaving the factory. The transportation company assumes full responsibility for safe delivery upon acceptance of this shipment.

If shipment arrives damaged:

1. **VISIBLE LOSS OR DAMAGE** — Be certain this is noted on freight bill or express receipt and signed by person making delivery.
2. **FILE CLAIM FOR DAMAGES IMMEDIATELY** — Regardless of extent of damage.
3. **CONCEALED LOSS OR DAMAGE** — If damage is unnoticed until merchandise is unpacked, notify transportation company or carrier immediately, and file "concealed damage" claim with them. This should be done within (15) days of date of delivery is made to you. Be sure to retain container for inspection.

   We cannot assume responsibility for damage or loss incurred in transit. We will, however, be glad to furnish you with necessary documents to support your claim.

PLEASE RETAIN THIS MANUAL FOR FUTURE REFERENCE

ADDENDUM
ALL GAS FRYER MANUALS

WARNING

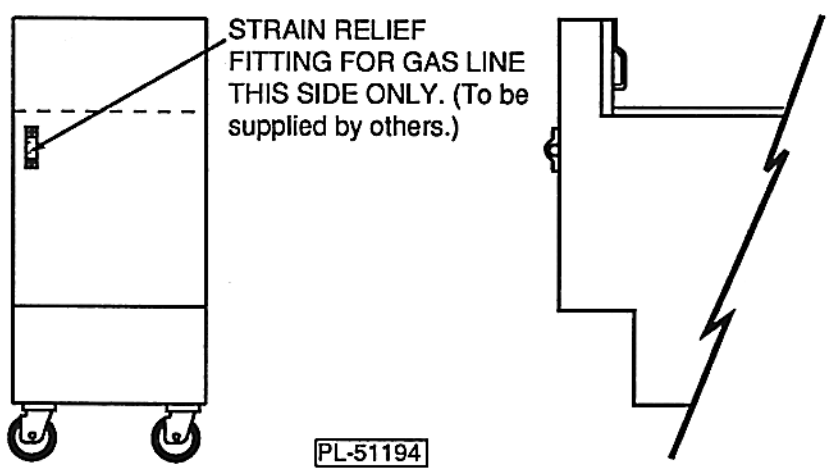
IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION OR MODIFICATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, INJURY OR DEATH. READ THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.

WARNING: SPILLING HOT FRYING COMPOUND CAN CAUSE SEVERE BURNS. DO NOT MOVE FRYER WITHOUT DRAINING ALL FRYING COMPOUND FROM THE TANK.

Clearances listed in this manual apply to combustible and non-combustible materials.

The fryer must be restrained with adequate ties to prevent tipping when installed in order to avoid the splashing of hot liquid.

Provide a restraining device for the gas line where shown below to limit movement of the fryer without depending on the connector and/or any quick-disconnect device or its associated piping to limit movement of the fryer.



IMPORTANT NOTES FOR ALL VULCAN APPLIANCES

1. These units are produced with the best possible workmanship and material. Proper installation is vital if best performance and appearance are to be achieved. Installer must follow the installation instructions carefully.
2. Information on the construction and installation of ventilating hoods may be obtained from the "Standard for the installation of equipment for the removal of smoke and grease laden vapors from commercial cooking equipment," NFPA No. 96 (latest edition) available from the National Fire Protection Association, Battery March Park, Quincy MA 02269.
3. For an appliance equipped with a flexible electric supply cord, the cord is equipped with a three prong (grounding) plug. This grounding plug is for your protection against shock hazard and should be plugged directly into a properly grounded three prong recepticle. Do not cut or remove the grounding prong from this plug. If the appliance is not equipped with a grounding plug, and electric supply is needed, ground the appliance by using the ground lug provided (refer to the wiring diagram).

(FOR GAS APPLIANCES ONLY)

4. Do not obstruct the air flow into and around the appliance. This air flow is necessary for proper combustion of gases and for ventilation of the appliance. Provisions for ventilation of incoming air supply for the equipment in the room must be in accordance with National Fuel Gas Code ANSI Z223.1 (latest edition).
5. Do not obstruct the flow of flue gases from the flue duct (when so equipped) located on the rear (or sides) of the appliance. It is recommended that the flue gases be ventilated to the outside of the building through a ventilation system installed by qualified personnel.
6. For an appliance equipped with casters, (1) the installation shall be made with a connector that complies with the Standard for Connectors for Movable Gas Appliances, ANSI Z21.69 (latest edition), and Addenda, Z21.69a (latest edition), and a quick-disconnect device that complies with the Standard for Quick-Disconnect Devices for Use With Gas Fuel, ANSI Z21.41 (latest edition), and Addenda, Z21.41a (latest edition) and Z21.41b (latest edition), and (2) adequate means must be provided to limit the movement of the appliance without depending on the connector and the quick–disconnect device or its associated piping to limit the appliance movement.

   If disconnection of the restraint is necessary, reconnect this restraint after the appliance has been returned to its originally installed position.
7. The appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of ½ psig (3.45 k Pa).
8. The appliance must be isolated from the gas supply system by closing its individual manual shutoff valve during any pressure testing of the gas supply system at test pressures equal to or less than ½ psig (3.45 k Pa).

CAUTIONS

FOR YOUR SAFETY

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINITY OF THIS EQUIPMENT OR ANY OTHER APPLIANCE.

1. **KEEP THE APPLIANCE FREE AND CLEAR FROM ALL COMBUSTIBLE SUBSTANCES.**
2. **IN THE EVENT A GAS ODOR IS DETECTED, SHUT UNIT(S) DOWN AT THE MAIN SHUTOFF VALVE AND CONTACT THE LOCAL GAS COMPANY OR GAS SUPPLIER FOR SERVICE.**
3. **POST IN A PROMINENT LOCATION, INSTRUCTIONS TO BE FOLLOWED IN THE EVENT THE SMELL OF GAS IS DETECTED. THIS INFORMATION MAY BE OBTAINED FROM A LOCAL GAS SUPPLIER.**

INSTALLATION, SERVICE & PARTS MANUAL FOR CROWN DELUXE & RESTAURANT GAS FRYERS

INDEX

Your Vulcan Heavy Duty Gas Fryer is produced with the best possible workmanship and material. Proper usage and maintenance will result in many years of satisfactory performance.

The manufacturer suggests that you thoroughly read this entire manual and carefully follow all of the instructions provided.

DESCRIPTION — PAGE

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WARNING: Back and sides of unit must be installed 6" from combustible construction.

Fryer must be installed at least 16" away from open top flame units.

A rating plate stating the unit model number, serial number, type of gas, voltage and amperage is located on the inside door panel.

HI LIMIT CAUTION:

The hi limit is a safety device which senses the temperature of the unit to prevent appliance overheating.

The hi limit operates independently and will automatically cause unit shut down should the primary control fail.

If this situation occurs, **DO NOT** attempt to bypass the hi limit. Shut unit down and contact a service agency.

The vent of this appliance should be checked every 6 months for restrictions.

GAS SUPPLY CONNECTION

or proper installation of the 7400 and 7500 Series Fryers, gas inlet pressure of at least 7.0"W.C. (Water Column) for natural gas and 11.0"W.C. for propane gas must be maintained while the unit is in operation.

When connecting unit gas supply, installation personnel must install this equipment in acccordance with all state and local codes having jurisdiction. In the absence of local codes, the National Fuel Gas Code ANSI Z223.1 (latest edition) will apply.

NOTE:

1. The fryer and its individual shut off valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of ½ psig (3.45 kPa).
2. The fryer must be isolated from the gas supply piping system by closing its individual manual shut off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than ½ psig (3.45 kPa).

Each burner is controlled by a combination gas valve pressure regulator. All 4 burner units are set for 5.5"W.C. for natural gas and all 5 burner units are set for 5.3"W.C. for natural gas. Both the 4 and 5 burner units are set for 10.0"W.C. for propane gas.

All gas supply connections any any pipe joint compound used must be resistant to the action of propane gases. Pipe joints should be tested for leaks with a soap and water solution before operation of unit.

UNITS MOUNTED ON CASTERS

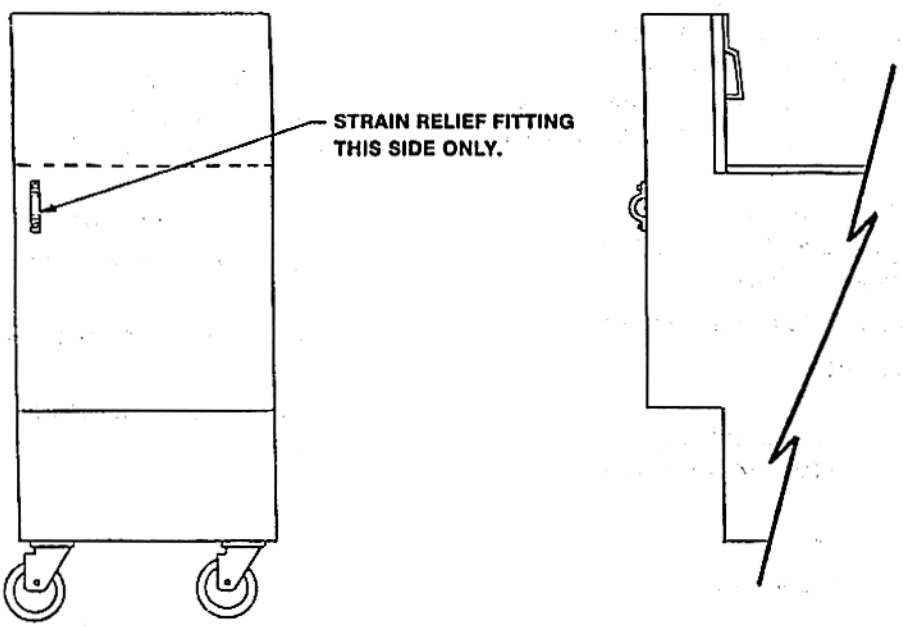
Units mounted on casters utilizing a flex hose and quick disconnect must be installed with a restraining device. The restraining device must be connected at all times. If disconnection of the device is necessary, reconnect the restraint, after the unit has been returned to its original installation position and before beginning unit operation. In addition the quick disconnect device must comply with the ANSI Z21.41 (latest edition) and ADDENDA, Z21.41a and Z21.41b (latest editions) Standard for Quick Disconnecting Devices used with Gas Fuel.

NOTE: All units on casters must be installed with a gas connector that complies with the American National Standards ANSI Z21.69 (latest edition) and ADDENDA Z21.69a (latest edition) for movable gas appliances.

ALL CASTER UNITS MUST BE INSTALLED PROVIDING ADEQUATE MEANS TO LIMIT THE MOVEMENT OF THE APPLIANCE WITHOUT DEPENDING ON THE CONNECTOR AND ANY QUICK DISCONNECT DEVICE OR ITS ASSOCIATED PIPING.

Installation of Unit Casters:

All 7400 and 7500 Series Fryers are shipped with casters unmounted. Mounting casters to the unit will require (2) people. After removing the fryer from the crate bottom carefully tilt fryer to one side and install (2) casters front to rear utilizing (4) ea. of the mounting bolts and hardware supplied. Repeat for other side of fryer.



INSTALLATION INSTRUCTIONS

BEFORE INSTALLATION:

Adequate ventilation should be provided, preferrably by a hood with vent and exhaust fan. Never make a direct flue connection between flue or fryer and vent flue unless a flue diverter is used and sometimes this is not satisfactory. Venting into a hood is preferrable. There must be sufficient clearance between doors and openings to move equipment into the kitchen.

UNPACKING – ASSEMBLING

Uncrate the unit carefully and place in the approximate position it will occupy in the battery. Fry baskets, crumb screen, and basket hanger assembly are packed with fryer.

INSTALLATION:

Set fryer in position and level front to rear and right to left. Gas connection (½") is provided at rear.

ELECTRICAL CONNECTIONS

A 120 volt 3 wire cycle supply cord is supplied at the rear on all "E" units ("G" units require no electrical connections). Multiple units, batteried at the factory, are equipped with a single electric supply cord.

IMPORTANT: Pipe joint compounds used when connecting appliances to gas should be resistant to the action of propane gas. Pipe joints should be tested for leaks with a soap and water solution before operating the unit.

All 7400 and 7500 series units are equipped with a factory installed rear flue box back heat shield. Heat shield is required when unit is installed next to combustible surface. A minimum 6" clearance to back and sides of combustible surface must be maintained at all times.

PILOT LIGHTING INSTRUCTIONS

TO PLACE IN OPERATION:

1. Make sure the thermostat dial and the combination dial (or lever) are in the "OFF" position.
2. Turn "ON" main gas supply.
3. Turn gas valve in unit (just above the combination valve) "ON".

LIGHTING PILOT:

1. Turn gas cock dial (or lever) on combination valve to "PILOT" position.
2. Depress gas dial (or lever) and light pilot; with pilot burning, hold gas cock dial depressed for approximately 30 seconds before releasing.

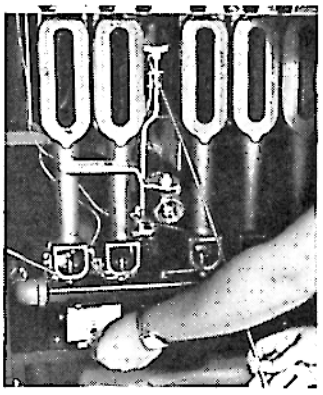
NOTE: If pilot does not remain lit, repeat step #2 after waiting 5 minutes to allow gas which may have accumulated in the burner compartment to escape. Allow a longer period of time before releasing gas dial (or lever) (adjust pilot flame if necessary).

3. Turn gas cock dial to "ON" position.
4. Flip power supply toggle switch into up position (7594E, 7595E, 7494E & 7495E units only).
5. Turn thermostat to desired temperature position.

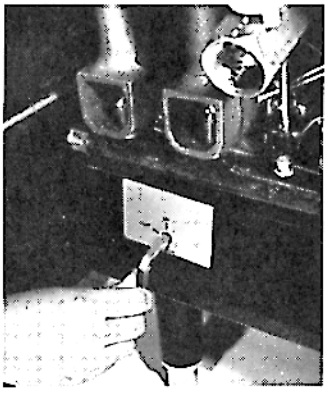
TEMPORARY SHUT DOWN:

See Details 1 & 1A

1. To turn unit "OFF", flip power supply toggle switch to down position (7594E, 7595E 7494E & 7495E units only).
2. Turn thermostat to "OFF" position.
3. Turn dial (or lever) on combination valve to "OFF" position.



DETAIL 1



DETAIL 1A

SEASONAL SHUT DOWN:

1. To turn unit "OFF", flip power supply toggle switch to down position (7594E, 7595E, 7494E, & 7495E units only).
2. Turn thermostat to "OFF" position.
3. Turn dial (or lever) on combination valve to "OFF" position.
4. Turn gas valve above combination valve to "OFF" position.

NOTE: To place unit back into operation, refer to Lighting Instructions above.

SERVICE

WARNING: Hot oil and parts can cause burns. Use care when servicing the fryer.

WARNING: Disconnect from power source before beginning any service.

SERVICING:

Any mechanical product, no matter how well made, will eventually need service attention. The equipment will need less service if given normal care and frequent cleaning. Have your service man check your equipment regularly.

Vulcan fryers are engineered for serviceability. Any part can be easily and quickly removed if necessary for cleaning, service or replacement. All parts are accessible from front of unit.

FILTERING:

Always filter frying compound when cold zone area under tubes is hot and liquid. A cold fryer heated up won't drain. Fat under tubes in cold zone remains hard. Use drain stock if necessary to stir up hard fat into top fat to melt it.

Open filter bag and slip it over end of drain valve nipple. Tie in place with bow knot behind pin on drain valve nipple so it won't slide off. Place receptacle under bag and turn on drain valve. Crumbs will be caught in bag but fat or oil will strain freely through bag into receptacle. When kettle is empty, use small pot with handle as ladle and dip hot oil from receptacle and pour vigorously around sides and bottom of kettle to wash out crumbs and particles adhering to kettle. Continue to dip and pour until all crumbs are washed down and into filter bag. Hold ladle or pot under filter bag and untie bow knot. Hot bag full of crumbs will be caught in ladle. Carry to sink and wash for next use. Crumbs and particles can be dumped out of bag by turning bag inside out. Close valve and pour fat back into kettle to continue frying.

Filtering takes less time than frying one load of potatoes and will pay dividends in fat savings and food quality.

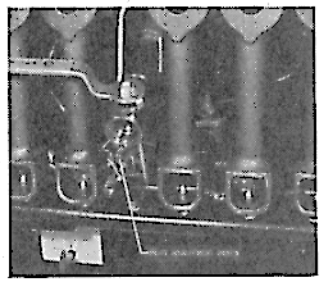
ADJUSTMENT:

See Detail 1B

PILOT BURNER: Requires no air or orifice adjustment. Adjust gas supply only be removing the adjustment cover cap and turning the adjustment screw with a small screwdriver clockwise to reduce, counterclockwise to increase. Pilot burner flame should extend past wing tips approximately ½".

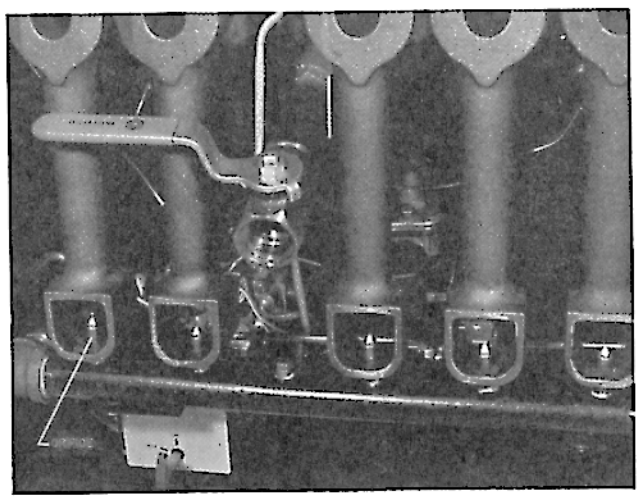
If pilot burner fails to light or goes out, turn all controls to "OFF" and wait 5 minutes before repeating lighting procedure.

If, when equipment is in operation, change in flame adjustment occurs, it means a drop in pressure or supply. Your service man should recheck lines for size, bends, stoppage, meter capacity, etc.



DETAIL 1B

Pilot Burners: Standard production types can be quickly disconnected and removed for service and cleaning. Clean burners in warm soapy water, be sure to dry thoroughly before remounting. See Detail 2.

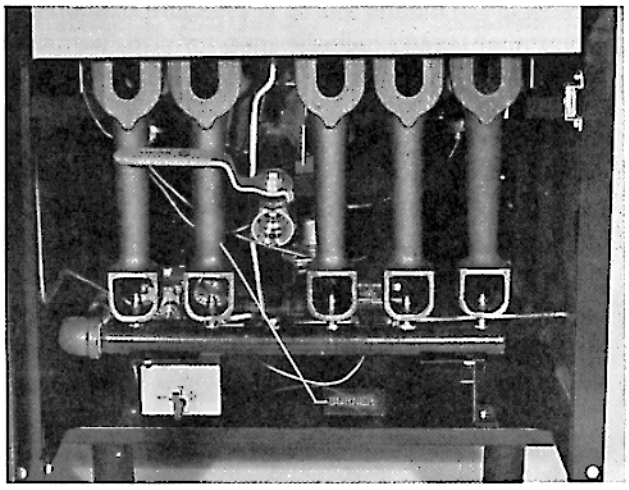


DETAIL 2

Recessed Bullet Nose Orifice Tips - 171 x 16-36 Thread

SERVICE (Cont.)

Main Burners: Ultra high input Bunsen type. See Detail 3.



Detail 3

Combination Automatic Valve: Combining regulator, automatic pilot, and electric valve with single knob control of pilot position, "ON" and "OFF" position. Components of this value can be quickly removed for service or replacement. The entire valve can be removed as quickly, if necessary. "E" units use 120 volt 60 Hz type. "G" units are millivolt type. Remove burners for access to valve.

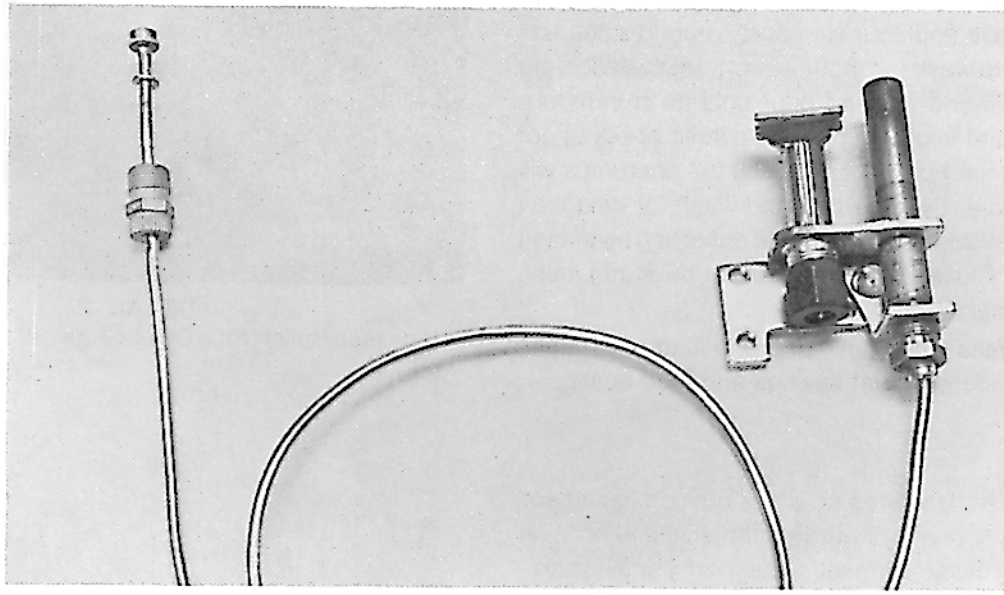
Auxiliary Shut Off Valve: All units have individual service valve for shut off of gas supply to unit. This valve permits servicing of individual unit without shut down of gas supply to any other kitchen equipment.

Thermostats: Units are provided with Robertshaw Thermostats, "E" models with KX type for 120 volts, "G" models with GS type for MV control.

Drain Valves: Ball type. All steel construction. This type valve does not require cleaning.

MAIN BURNER ORIFICES

Maximum Input Per Burner	Pressure Reg.	Part No.	Size	Gas
32,500 BTU/hr.	5.5"W.C.	10901-35	No. 35 (.110)	Natural
32,500 BTU/hr.	10.0"W.C.	10901-51	No. 51 (.067)	Propane



PILOT BURNERS

Item	Part No.	Gas	Orifice Robertshaw No.		Used On
1	112082-1	Natural	.016	3CH-10	"E" & "G" Models
2	112082-2	Propane	.010	3CH-10	"E" & "G" Models
THERMOPILE – 500 MILLIVOLT					
3	110839-1	Nat., Propane & Mixed	DNA	51023	"E" & "G" Models

SERVICE (Cont.)

High Limit Control: The function of the High Limit Control is to shut the unit down in the event of a thermostat failure which would allow the cooking oil to be over heated. The operating temperature of the High Limit Control is 450° or 50° higher than the highest temperature allowed by the thermostat when the thermostat is functioning properly.

In the event of a high limit "Shut Down" the entire control system will be put out of operation, and relighting the pilot will be required (See Instructions on Page 4).

DO NOT attempt to re-light the pilot unit the temperature of the cooking oil has lowered to approximately 350°.

Thermostat service is indicated if the high limit Cut-Off persists.

The High Limit Control is located behind the manifold pipe in the lower cabinet.

TESTING

TESTING MILLIVOLT SYSTEM "G" UNITS

Millivolt meter required for powerpile and Pilot Outage Protection Device Tests.

1. Powerpile Test

Turn the thermostat to "OFF". Disconnect powerpile lead from control and clamp meter leads to powerpile tip and capillary. Plug in meter leads to 1000 MV scale. Turn control lever to pilot position and light pilot burner. Hold in manually for 2 to 4 minutes until meter needle has steadied out. Meter reading should be no less than 150 millivolts closed circuit. If less replace the thermopile.

2. Safety Magnet

Turn thermostat to "OFF" If unit is not in operation, turn control lever to "PILOT" position and light pilot burner. Allow 2 to 4 minutes for powerpile to reach maximum output. Turn control lever to "OFF" to extenguish pilot. Meter reading will slowly decrease as powerpile is cooling. Read meter when drop out clock of pilot outage protection device is heard. Replace detection device magnet or entire valve if reading is lower than 40 MV closed circuit.

3. Thermostat Check

A. "KX" thermostat - 120 volt system used on models 7494E & 7495E.

Turn thermostat to "OFF". If unit is not in operation, turn control lever to pilot position and light pilot burner. Allow time for powerpile to reach maximum output. Turn control lever to "ON" position. Turn thermostat on to temperature setting above that of fat. If main burners do not light, turn thermostat back to "OFF". Remove front panel screws and drop front panel away from unit to examine terminal connections to thermostat. If loose, tighten and recheck thermostat operation. If thermostat fails to operate main burners, jump thermostat terminals with screwdriver blade, or by other means. If main burners then operate, it indicates faulty thermostat.

B. "GS" thermostat for millivoltage system used on models 7594G & 7595G.

Turn thermostat to "OFF". If unit is not in operation, turn control levers to pilot position and light pilot burner. Allow time for powerpile to reach maximum output. Turn control lever to "ON" position. Turn thermostat on to temperature setting above that of fat. If main burners do not light, turn thermostat back to "OFF". Test as follows:

Check for gas flow through ¼" bleed tubes. Bleed gas is routed from safety valve to thermostat back to safety valve. Tubes must be open for free gas flow. If tubes are open, remove tube at outlet of thermostat and blow into this tube. If main burners cycle on, replace the thermostat. If the main burners do not come on, replace the safety valve.

IMPORTANT: If main burner gas is on and cannot be controlled or cycled with the thermostat, a gas leak in the bleed gas system is indicated.

NOTE: In the event that the fat temperature reaches 450° the high limit control will shut down the system. See High Limit Control Instructions.

NOTE: When replacing thermostat, make sure excess capillary tubing from bulb is coiled neatly out of burner flame areas. Do not allow capillary lead to touch side of heat exchanger tubes.

CALIBRATION:

Each model KX electric thermostat and "GS" gas thermostat is adjusted at the factory and calibrated on precision instruments to control temperatures accurately. Adjustment or recalibration is not needed unless the thermostat has been mishandled in transit, or changed or abused while in service.

To check calibration:

1. Use a potentiometer or good grade thermometer to determine temperature at the location where temperature regulation is required.

TESTING (Cont.)

2. Turn the thermostat knob to a medium temperature setting.

3. Allow enough time for temperature to stabilize, or until several temperature readings are identical.

4. Read thermometer to see if it agrees with dial setting. The difference between dial setting and thermometer reading should not be more than 3% of the total temperature range on the thermostat dial.

5. If difference in reading is more than 3%, recalibrate the thermostat as follows:

a) Remove thermostat knob.

b) Rotate screw-in stem clockwise to decrease and counterclockwise to increase temperature. ¼ turn equals 18°,

c) Replace knob, reset medium temperature setting, and recheck.

FRY TANK REPLACEMENT PROCEDURE

1. Turn thermostat to "OFF". Unplug electric cord on "E" models.

2. Drain frytank.

3. Lift off basket hanger. Remove baskets and crumb screen.

4. Remove burners.

5. Turn service valve "OFF".

6. Disconnect pilot burner and demount from tank.

7. Remove thermostat bulb and high limit bulb, through fittings in bottom of frytank.

8. Tank with flue box attached can now be lifted out of unit.

NOTE: Transfer flue box from old tank to new when replacing tank.

PROBLEMS AND CAUSES

PROBLEM	CAUSE
Fryer not working to normal high speed the temperature of the fat drops too far and excessive recovery time required.	Insufficient gas supply to unit, supply lines need correction.
	Ventilating system pulling heat out of the Heat Exchanger and Flue Box Ventilating system required correction.
	Flue blockage; burner flames not drawing in the tubes, remove blockage and check venting.
	Overloading capacity, need larger fryer.
Pilot won't stay lit, shuts off fryer.	Defective thermopile or loose or dirty connection in thermopile.
	Defective safety shut off valve.
	Pilot burner orifice and air openings need cleaning.
	High limit shut down (See High Limit Control Instructions).
	Millivolt and Millampmeter required to check above or use replacement thermopile valve.
Rapid fat breakdown, crumbs and specks in fat.	Excessive temperature settings (over 375°).
	Fat not being filtered regularly.
	Incorrect preparation breaded foods. – Don't use salt. – Allow breading time to adhere to foods. – Loose flour falls into fat from hands.
	Don't add strainings or drippings from meat fats to kettle fat.
	Dirty fry kettle, sludge and carbon build-up gives bad taste and hastens breakdown.
	Take out 10 to 15% of the frying compound and fill with fresh frying compound. Use compound taken out in other cooking. Keeps acid buildup down.
	Check thermostat settings with thermometer in kettle periodically. Thermostat may become out of calibration and give excess temperature at low settings.
Leaking kettle.	Frying oil will follow metal surfaces up and down. Foam over by worn out fats permit oils to drip from kettle surfaces giving appearance of leak.
	Careless draining procedure without turning off burners to prevent operation with empty tank, damages tank joints.
	Carbon build up in dirty kettles causes rapid attack on kettle by promoting acid formulation.

PROBLEMS AND CAUSES (Millivolt System)

PROBLEM	CAUSE
Pilot burner lights and Safety "holds in" but "drops out" when Thermostat is turned "ON" (See below also)	Possible High Drop Out in Safety Operator portion of valve assembly.
	Possible low output powerpile cartridge.
	Possible loose wiring and terminal connections.
	Pilot flame adjusted too low, increase. a) Check all wiring and connections. See that terminals are not touching another terminal and connection of wire to Safety Operating house is tight and clean. b) See testing Powerpile cartridge and Safety Operator with Millivolt Meter for accurate check for these items. If meter is not available, replace automatic pilot magnet or entire valve. If unit will still not operate, replace Powerpile.
Pilot burner lights and Safety "holds in" but unit will not operate when Thermostat is turned "ON".	Possible faulty thermostat.
	Possible faulty Diaphram Valve.
	Possible loose wiring and terminal connections.
	High Limit Shut Down (See High Limit Control Instructions) a) Check wiring as above, See testing of Diaphram Valve and Thermostat.
Erratic operation. Unit may operate without trouble for one hour or several days.	This is borderline condition of (1) and same checks and tests are required.
Unit comes "ON" when control lever is turned "ON" even though Thermostat is "OFF"	**"G" Control System (Millivolt)** a) Defective thermosat (Robertshaw "GS") b) Leak in bleed gas system, Check tube fittings at thermostat and safety valve.
	"E" Control System (120V) a) Defetive thermostat (Robertshaw "KX") b) Thermostat terminals touching one another. c) Thermostat wire insulation gone and bare wire grounded to unit.
Pilot burner flames adjusted properly but fluctuate to very low and blow out easily.	Check gas pressure at sub-manifold fitting on fryer when unit in operation and all other equipment on same gas line in operation.
	Pressure at sub-manifold (pipe on which burners are mounted) should not be less than 3"W.C. (nat. & mixed) or 11"W.C. (propane) gas. Some local gas utilities will make check if requested.

REPLACEMENT PARTS

The following information must accompany a replacement parts order or it cannot be filled.

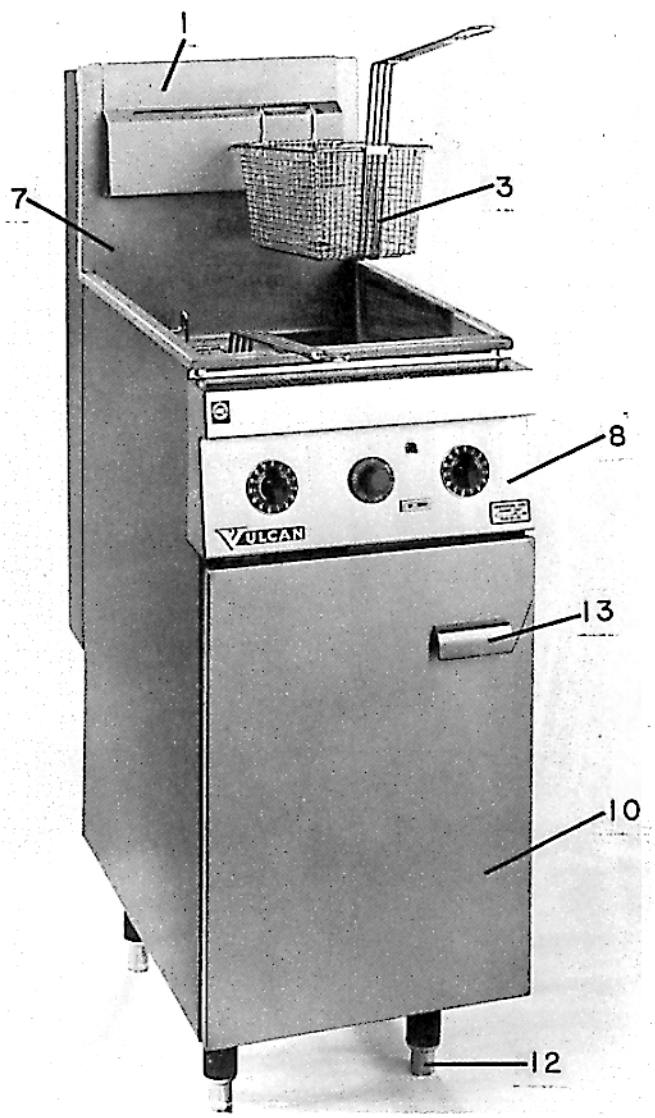
A. Model and Style Number
B. Type of gas
C. Appliance voltage or amperage.
D. Appliance finish (black) or (stainless steel). (If applicable to part to be replaced.)

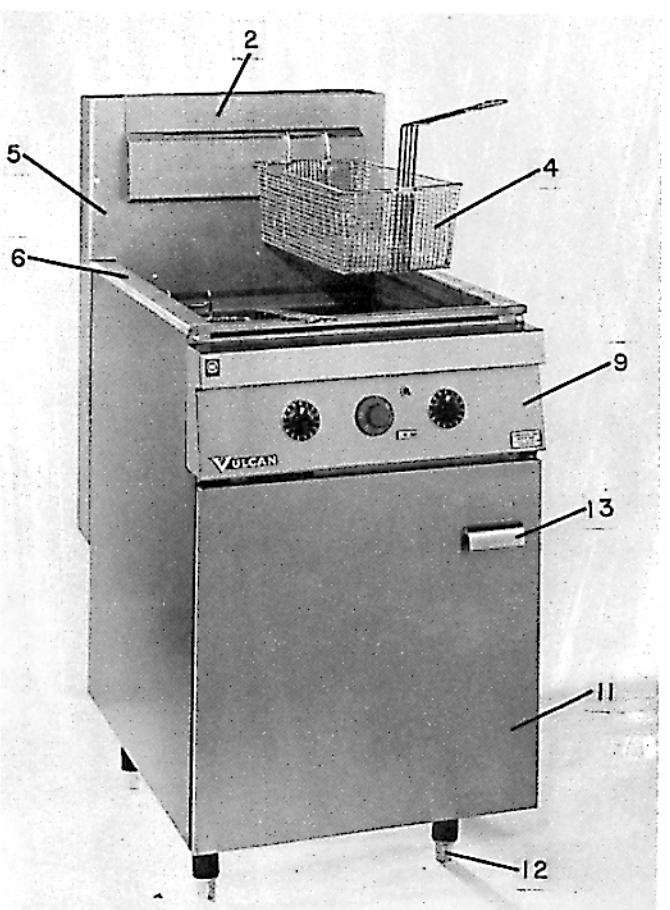
This information can be found on the rating plate located inside the door panel of the unit. Parts may be ordered from your dealer, service agency or parts distributor.

REPLACEMENT PARTS FOR 7494 AND 7495G & E FRYERS

REPLACEMENT PARTS (Cont.)

ITEM NO.	PART NO.	DESCRIPTION	QUANTITY 7494E	QUANTITY 7495E
1	110747-1	Basket Hanger	1	—
2	110747-2	Basket Hanger	—	1
3	110737-1	Fryer Basket (twin)	2	—
4	110737-2	Fryer Basket (twin)	—	2
5	111077-G2	Splasher Guard Assembly	1	—
6	110722-G1	Tank Assembly	1	—
7	110723-G1	Tank Assembly	—	1
8	110833-G5	Control Cover Front Top Assembly	1	—
9	110833-G6	Control Cover Front Top Assembly	—	1
10	112945-G13	Door Panel Assembly	1	—
11	112945-G11	Door Panel Assembly	—	1
12	113112-1	Leg	4	4
13	108615-21	Door Handle	1	1

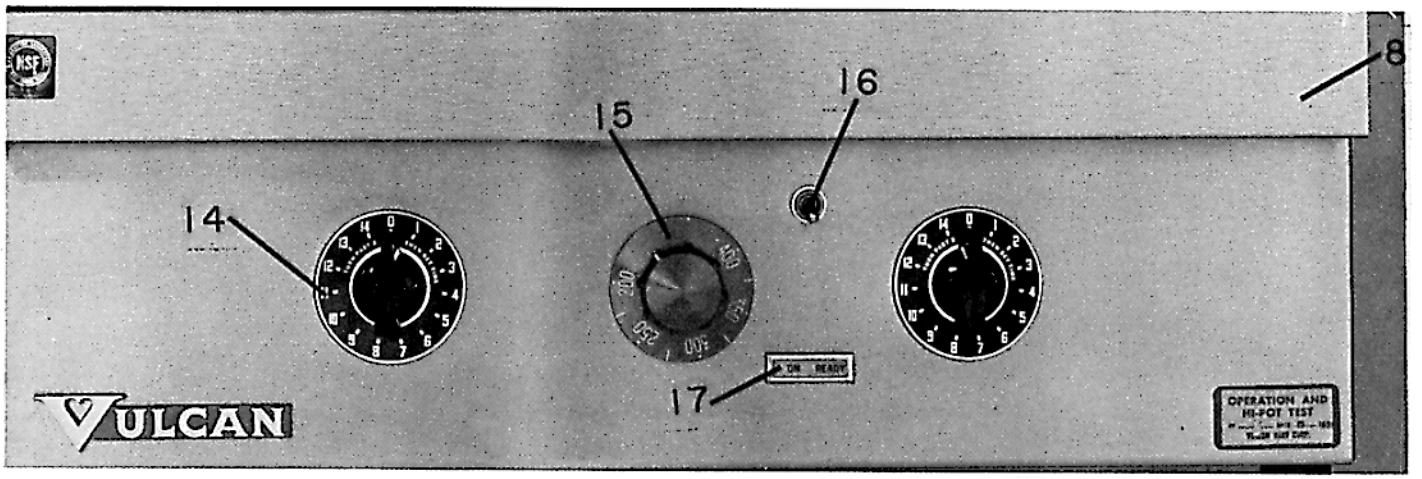


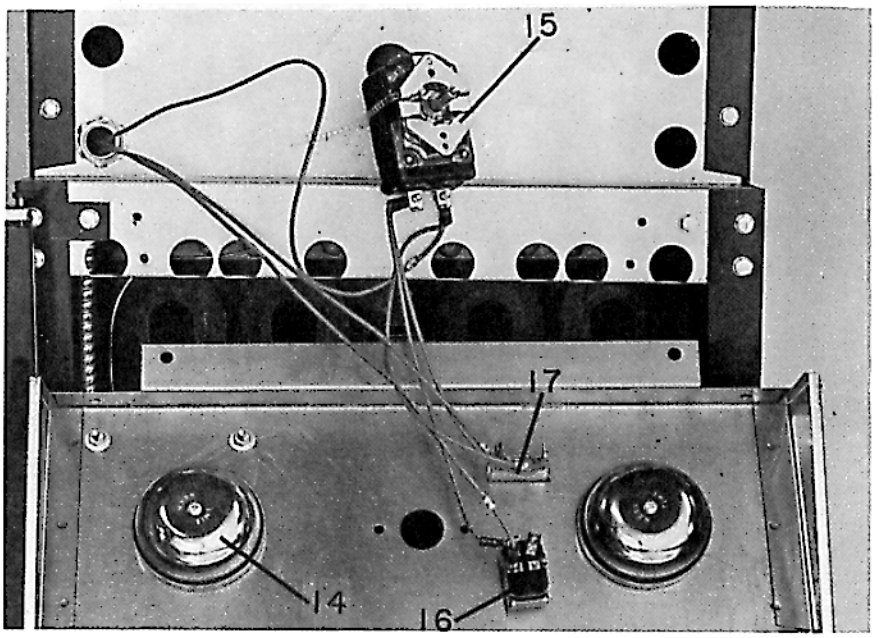


REPLACEMENT PARTS (Cont.)

ITEM NO.	PART NO.	DESCRIPTION	QUANTITY 7494E	QUANTITY 7495E
8	110833-G5	Control Cover Front Top Assembly	1	—
9	110833-G6	Control Cover Front Top Assembly (NS)	—	1
14	108656-1	Timer	2	2
15	110687-1	Thermostat	1	1
16	21022-20	Toggle Switch	1	1
17	110690-1	Ready Light	1	1

(NS) – Not Shown

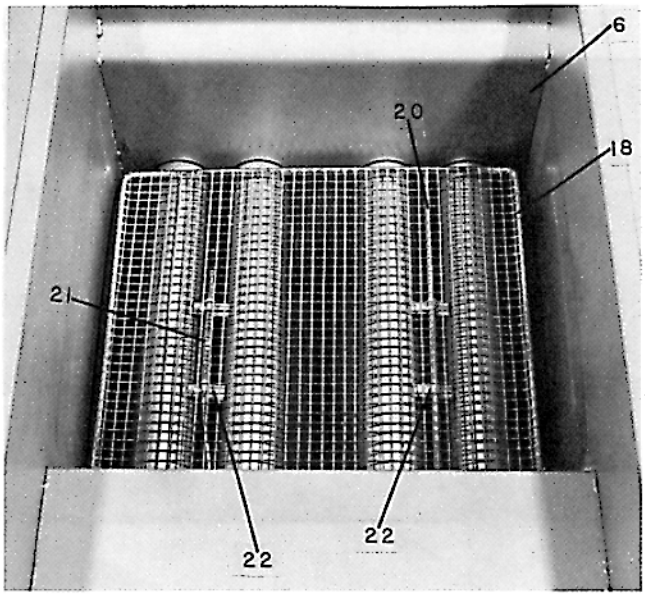


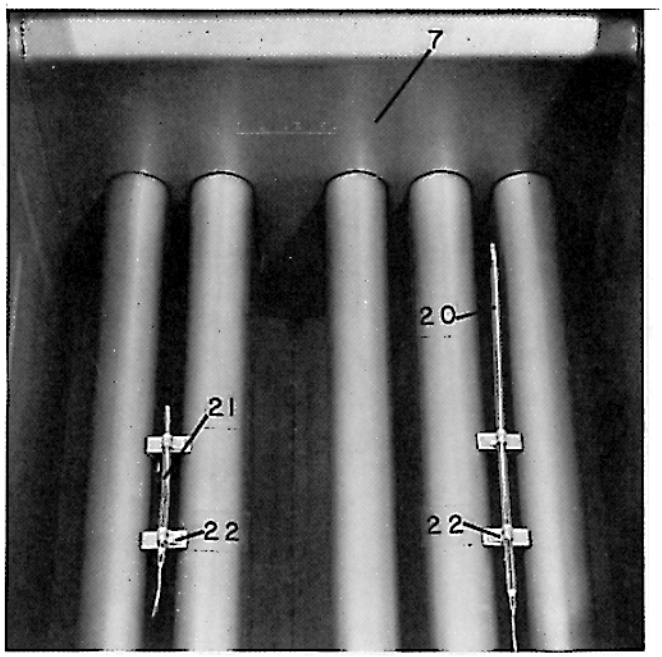


REPLACEMENT PARTS (Cont.)

ITEM NO.	PART NO.	DESCRIPTION	QUANTITY 7494E	QUANTITY 7495E
6	110722-G1	Tank Assembly	1	—
7	110723-G1	Tank Assembly	—	1
18	110738-1	Crumb Screen	1	—
19	110738-2	Crumb Screen (NS)	—	1
20	110837-2	Thermo. Bulb	1	1
21	110840-2	Hi Limit Bulb	1	1
22	102558-4	Clamp	4	4

(NS) – Not Shown

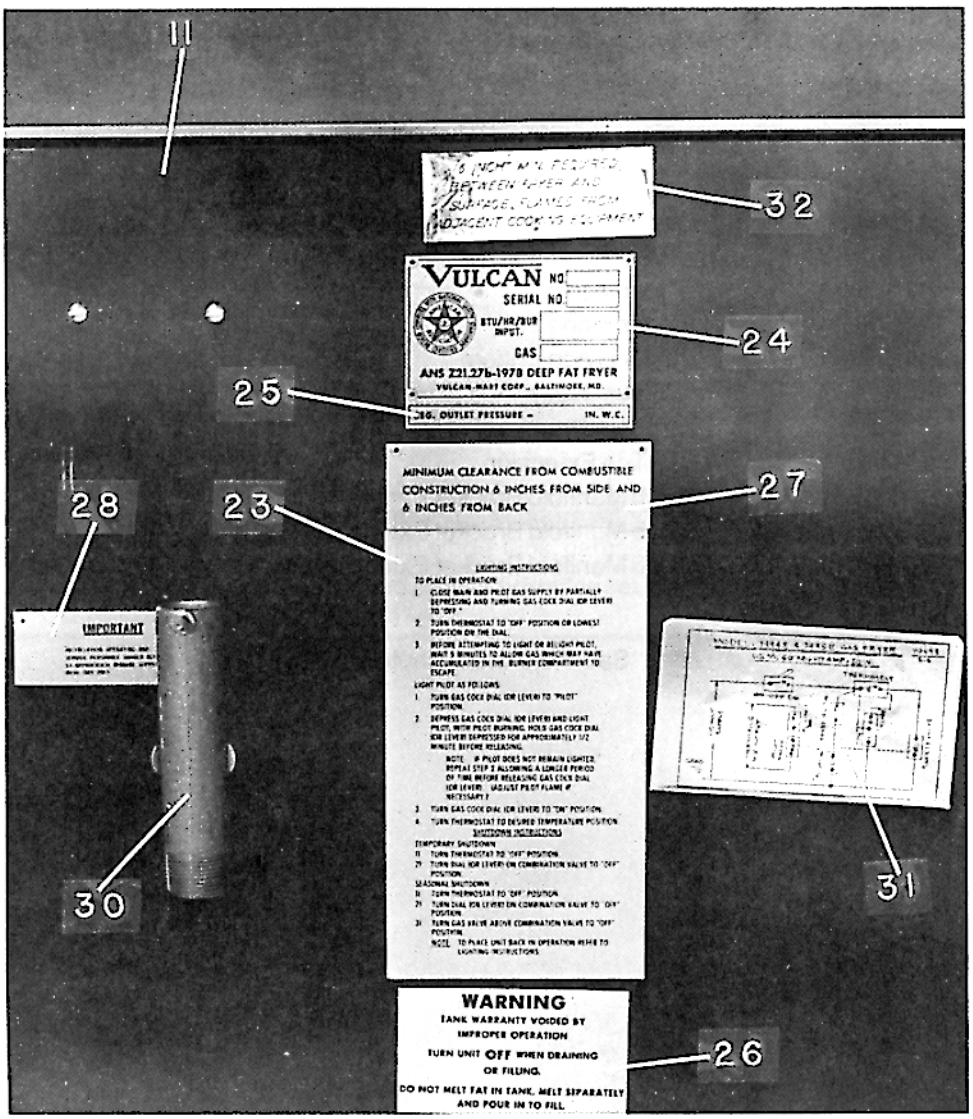




REPLACEMENT PARTS (Cont.)

ITEM NO.	PART NO.	DESCRIPTION	QUANTITY 7494E	QUANTITY 7495E
10	112945-G13	Door Panel Assembly (NS)	1	—
11	112945-G11	Door Panel Assembly	—	1
23	112663-1	Lighting Instruction Decal	1	1
24	111955-2	Rating Decal	1	1
25	108618-1	Pressure Setting Plate	1	1
26	109329-1	Warning Decal	1	1
27	110694-1	Clearance Decal	1	1
28	113831-1	Important Plate	1	1
29	110718-1	Drain Pipe (NS)	1	1
30	110718-2	Drain Pipe	1	1
31	110693-D6	Wiring Decal	1	1
32	114307-1	Surface Flame Decal	1	1

(NS) – Not Shown



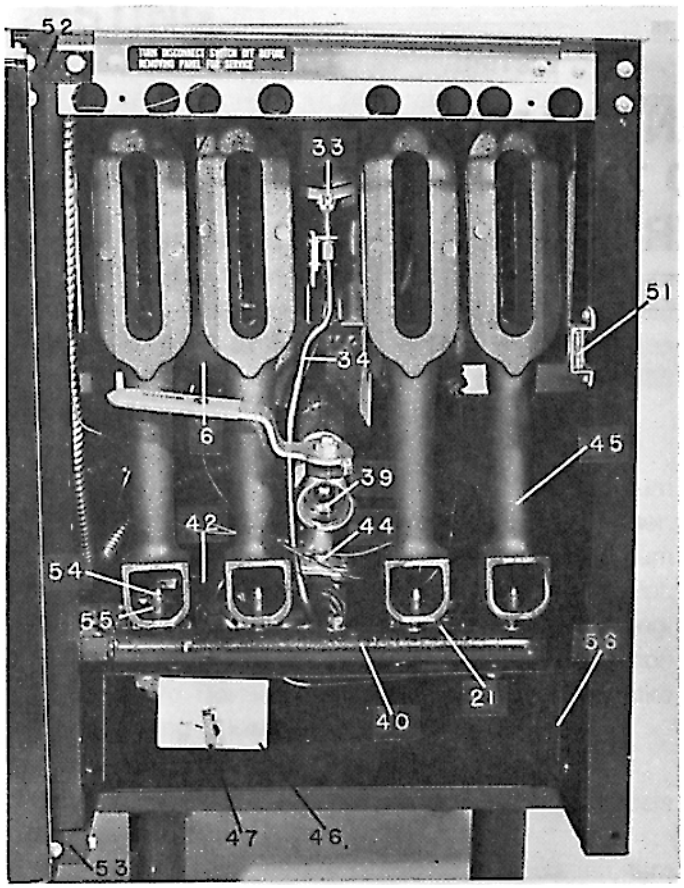
REPLACEMENT PARTS (Cont.)

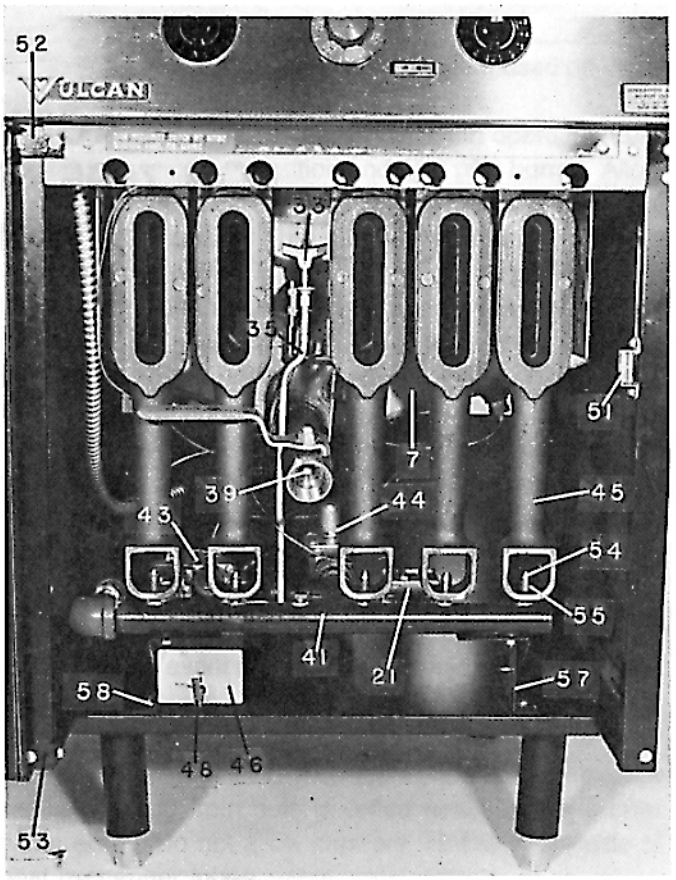
ITEM NO.	PART NO.	DESCRIPTION		QUANTITY 7494E	QUANTITY 7495E
6	110722-G1	Tank Assembly		1	—
7	110723-G1	Tank Assembly		—	1
21	110840-2	Hi Limit Control		1	1
33	112212-1	Pilot Burner (Nat)	SELECT	1	1
33A	112212-2	Pilot Burner (Propane) (NS)		1	1
34	113765-1	Pilot Tube Safety To Pilot		1	—
35	113765-2	Pilot Tube Safety To Pilot		—	1
36	110839-1	Thermopile (NS)		1	1
39	109408-1	Drain Valve – Ball		1	1
40	110696-G1	Sub Manifold		1	—
41	110696-G2	Sub Manifold		—	1
42	112196-G11	Control Assembly (Nat.)	SELECT	1	—
42A	112196-G12	Control Assembly (Propane)		1	—
43	112196-G15	Control Assembly (Nat.) (NS)	SELECT	—	1
43A	112196-G16	Control Assembly (Propane) (NS)		—	1
44	108279-10	Regulator (Nat.)	SELECT	1	1
44A	108279-3	Regulator (Propane) (NS)		1	1
45	110681-1	Burner		1	1
46	113435-1	Control Valve Plate		1	1
47	113433-1	Valve Lever – Fryer		1	—
48	113433-2	Valve Lever – Fryer		—	1
49	113434-1	Bracket Remote Control Rod (NS)		1	—
50	113434-2	Bracket Remote Control Rod (NS)		—	1
51	108834-1	Door Magnet		1	1
52	112779-6	Door Hinge Top		1	1
53	112780-3	Door Hinge Bottom		1	1
54	10901-42	Orifice (Nat.)	SELECT	4	5
54A	10901-51	Orifice (Propane)		4	5
55	110695-1	Orifice Extension		4	5
56	113028-1	Sub Manifold Bracket		1	—
57	113031-2	Sub Manifold Bracket Extension RT.		—	1
58	113031-3	Sub Manifold Bracket Extension LT.		—	1

(NS) – Not Shown

See Reference Photo Pg.17

REPLACEMENT PARTS (Cont.)

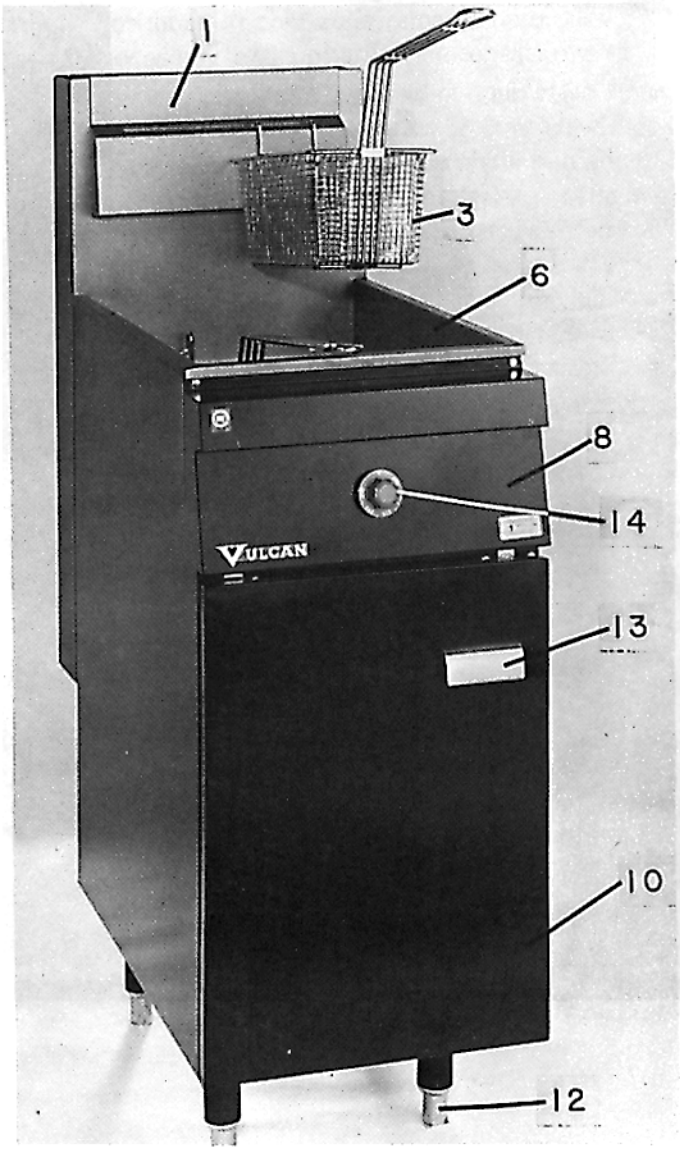


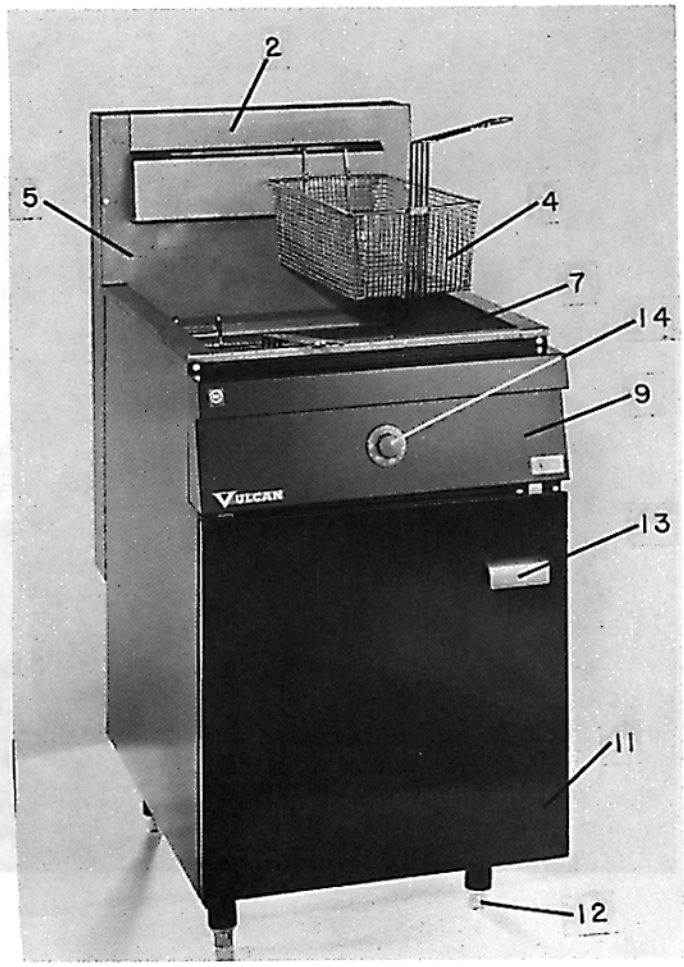


REPLACEMENT PARTS FOR 7595 AND 7594G & E FRYERS

REPLACEMENT PARTS (Cont.)

ITEM NO.	PART NO.	DESCRIPTION	QUANTITY 7594G	QUANTITY 7595G
1	110747-3	Basket Hanger	1	—
2	110747-4	Basket Hanger	—	1
3	110737-1	Fryer Basket (twin)	2	—
4	110737-2	Fryer Basket (twin)	—	2
5	111077-G1	Splasher Guard Assembly	—	1
6	110722-G2	Tank Assembly	1	—
7	110723-G2	Tank Assembly	—	1
8	110833-G1	Control Cover Front Top Assembly	1	—
9	110833-G2	Control Cover Front Top Assembly	—	1
10	112945-G14	Door Panel Assembly	1	—
11	112945-G12	Door Panel Assembly	—	1
12	113112-1	Leg	4	4
13	108615-21	Door Handle	1	1
14	110837-2	Thermostat "GS"	1	1

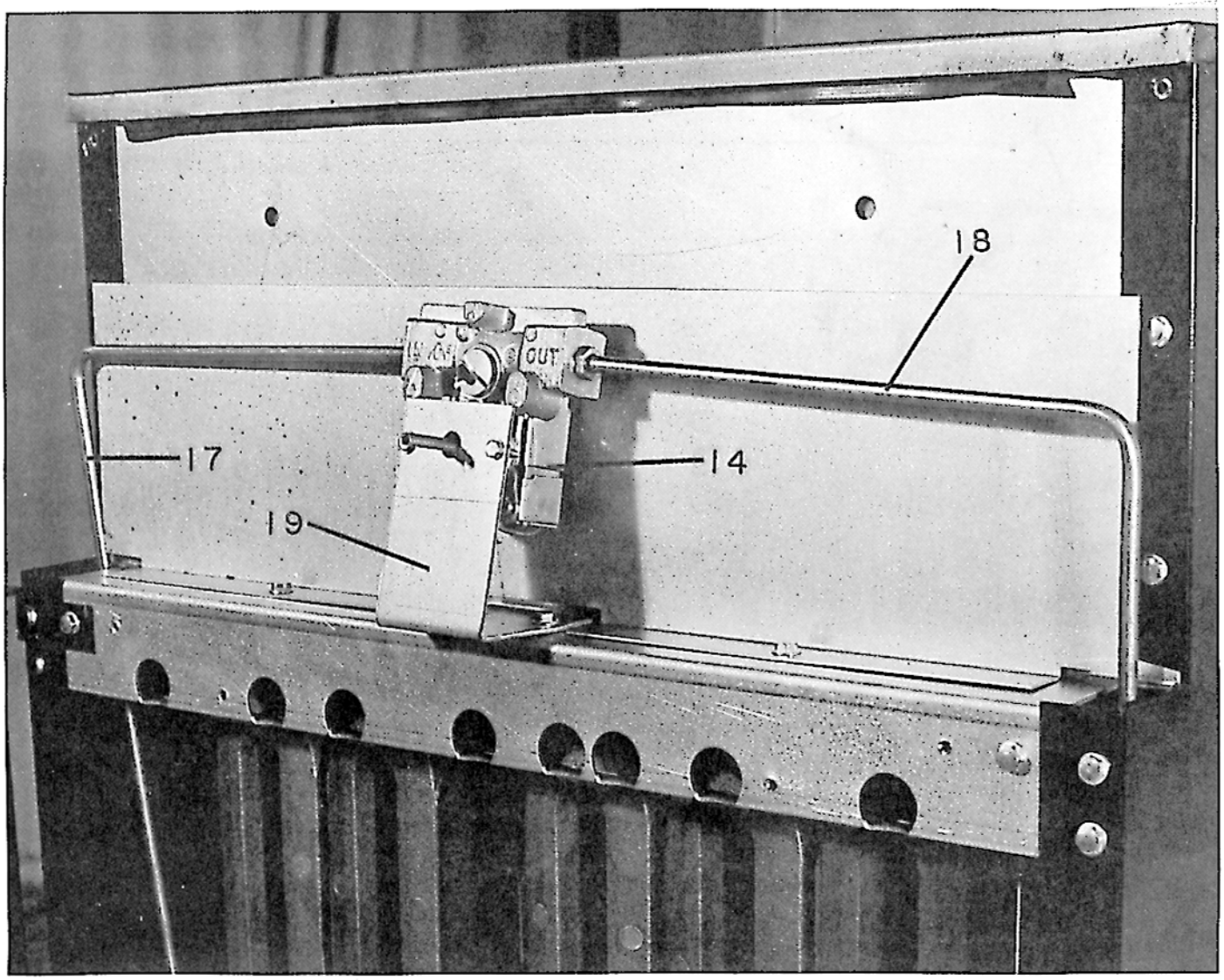




REPLACEMENT PARTS (Cont.)

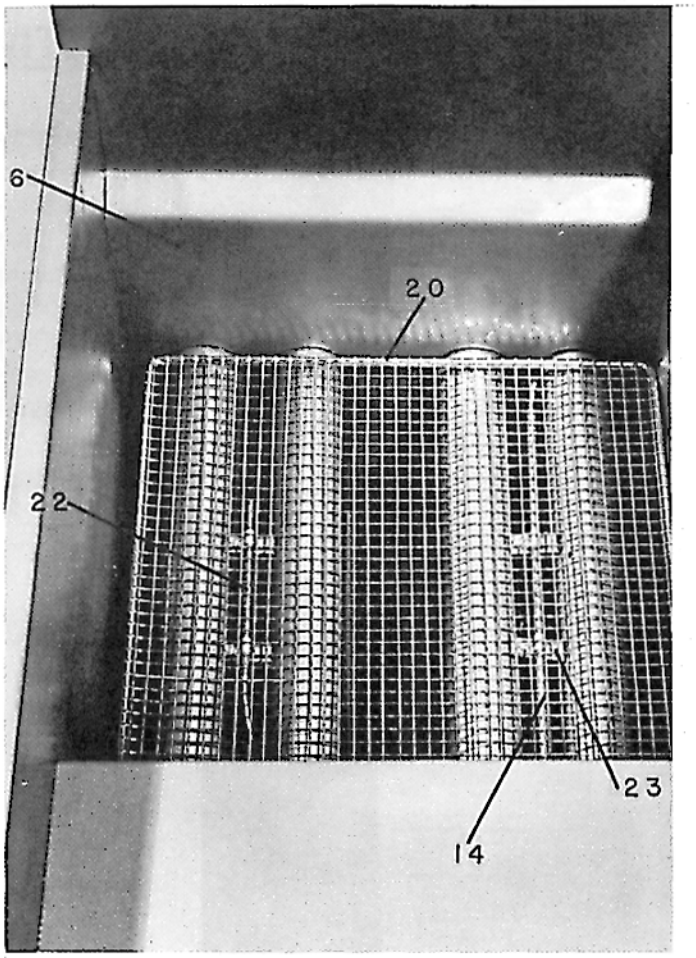
ITEM NO.	PART NO.	DESCRIPTION	QUANTITY 7594G	QUANTITY 7595G
14	110837-2	Thermostat "GS"	1	1
15	112090-G1	Left Bleed Gas Tube Assembly (NS)	1	—
16	112091-G1	Right Bleed Gas Tube Assembly (NS)	1	—
17	112090-G2	Left Bleed Gas Tube Assembly	—	1
18	112091-G2	Right Bleed Gas Tube Assembly	—	1
19	112093-1	Thermostat Support Bracket	1	1
23	102558-4	Clamp (NS)	4	4

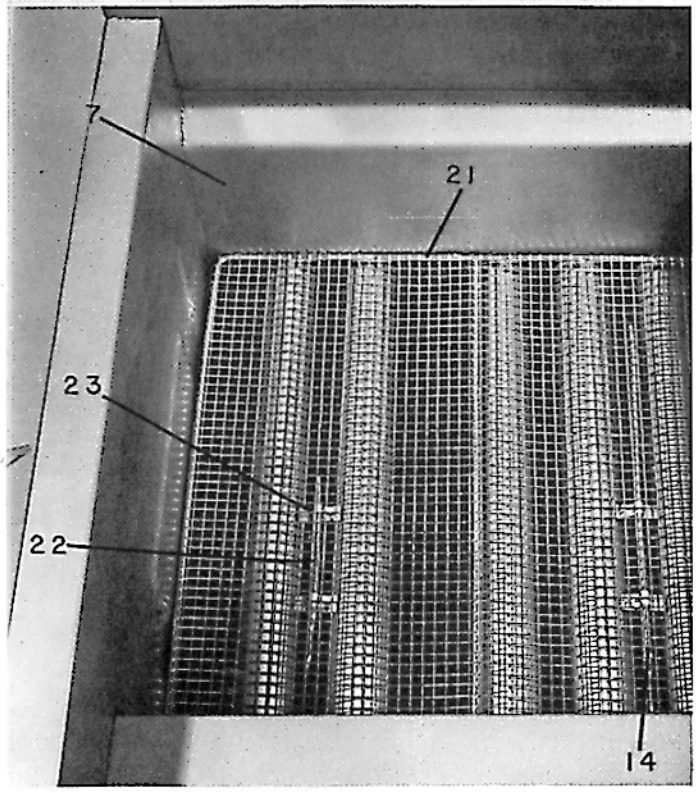
(NS) – Not Shown



REPLACEMENT PARTS (Cont.)

ITEM NO.	PART NO.	DESCRIPTION	QUANTITY 7594G	QUANTITY 7595G
6	110722-G2	Tank Assembly	1	—
7	110723-G2	Tank Assembly	—	1
14	110687-1	Thermo. Bulb	1	1
20	110738-1	Crumb Screen	1	—
21	110738-2	Crumb Screen	—	1
22	110840-2	Hi Limit Bulb	1	1
23	102558-4	Clamp	4	4

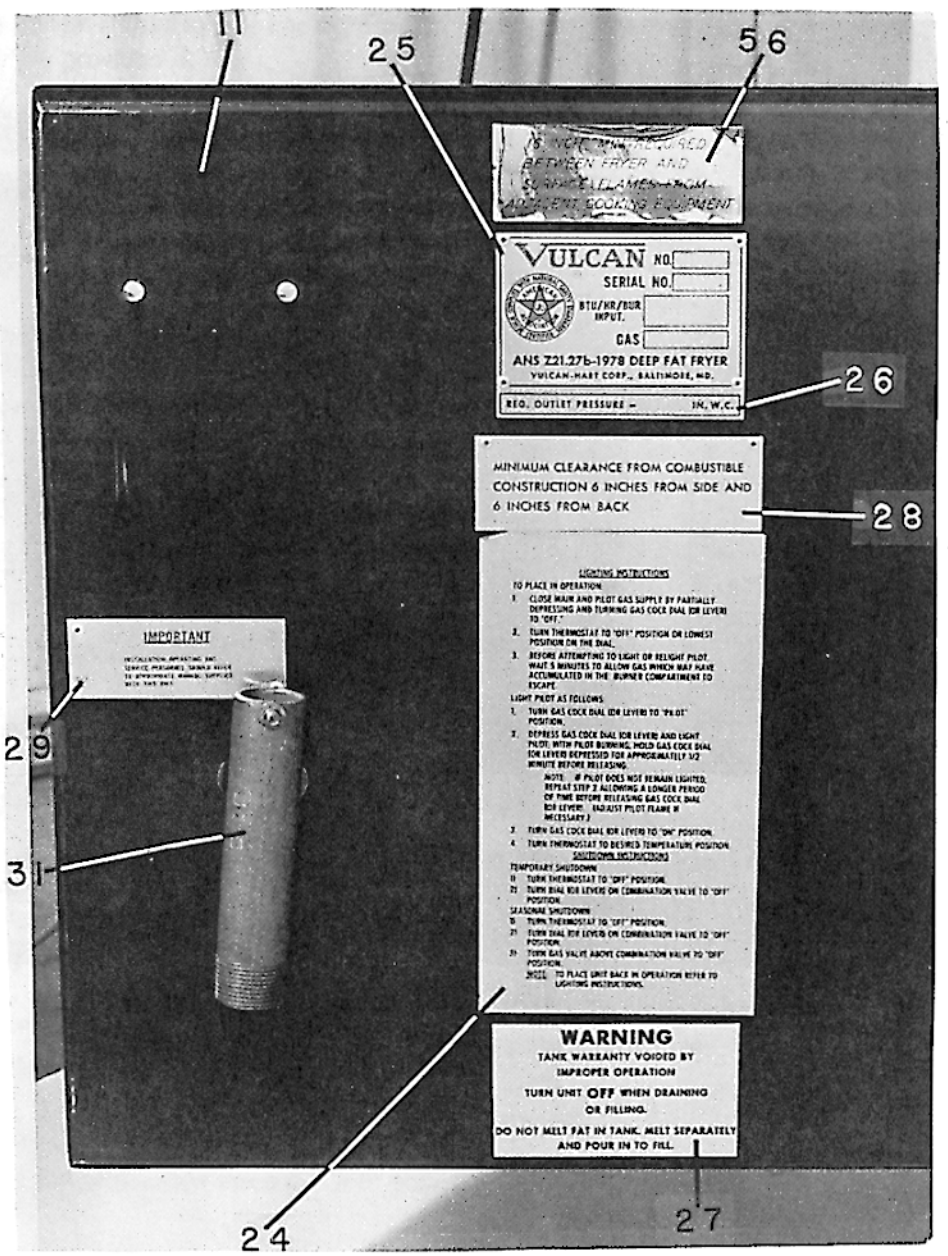




REPLACEMENT PARTS (Cont.)

ITEM NO.	PART NO.	DESCRIPTION	QUANTITY 7594G	QUANTITY 7595G
10	112945-G14	Door Panel Assembly (NS)	1	—
11	112945-G12	Door Panel Assembly	—	1
24	112663-1	Lighting Instruction Decal	1	1
25	111955-2	Rating Plate	1	1
26	108618-1	Pressure Setting Plate	1	1
27	109329-1	Warning Decal	1	1
28	110694-1	Clearance Decal	1	1
29	113831-1	Important Plate	1	1
30	110718-1	Drain Pipe (NS)	—	1
31	110718-2	Drain Pipe	1	—
56	114307-1	Surface Flame Decal	1	1

(NS) – Not Shown



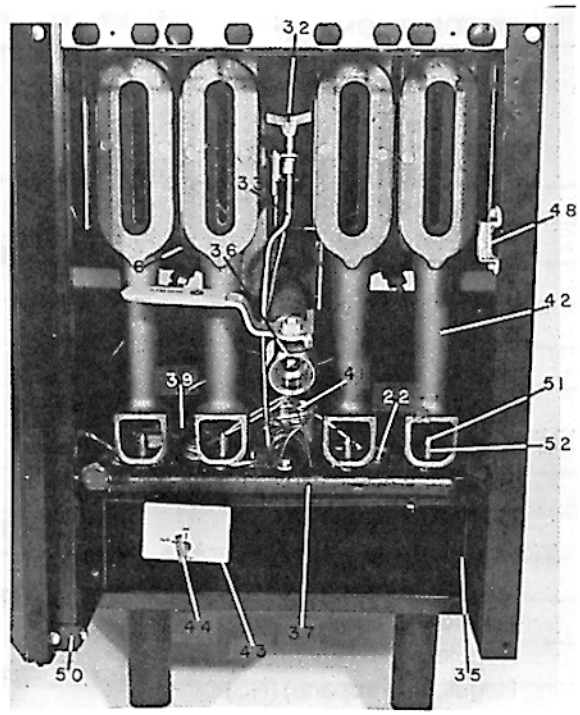
REPLACEMENT PARTS (Cont.)

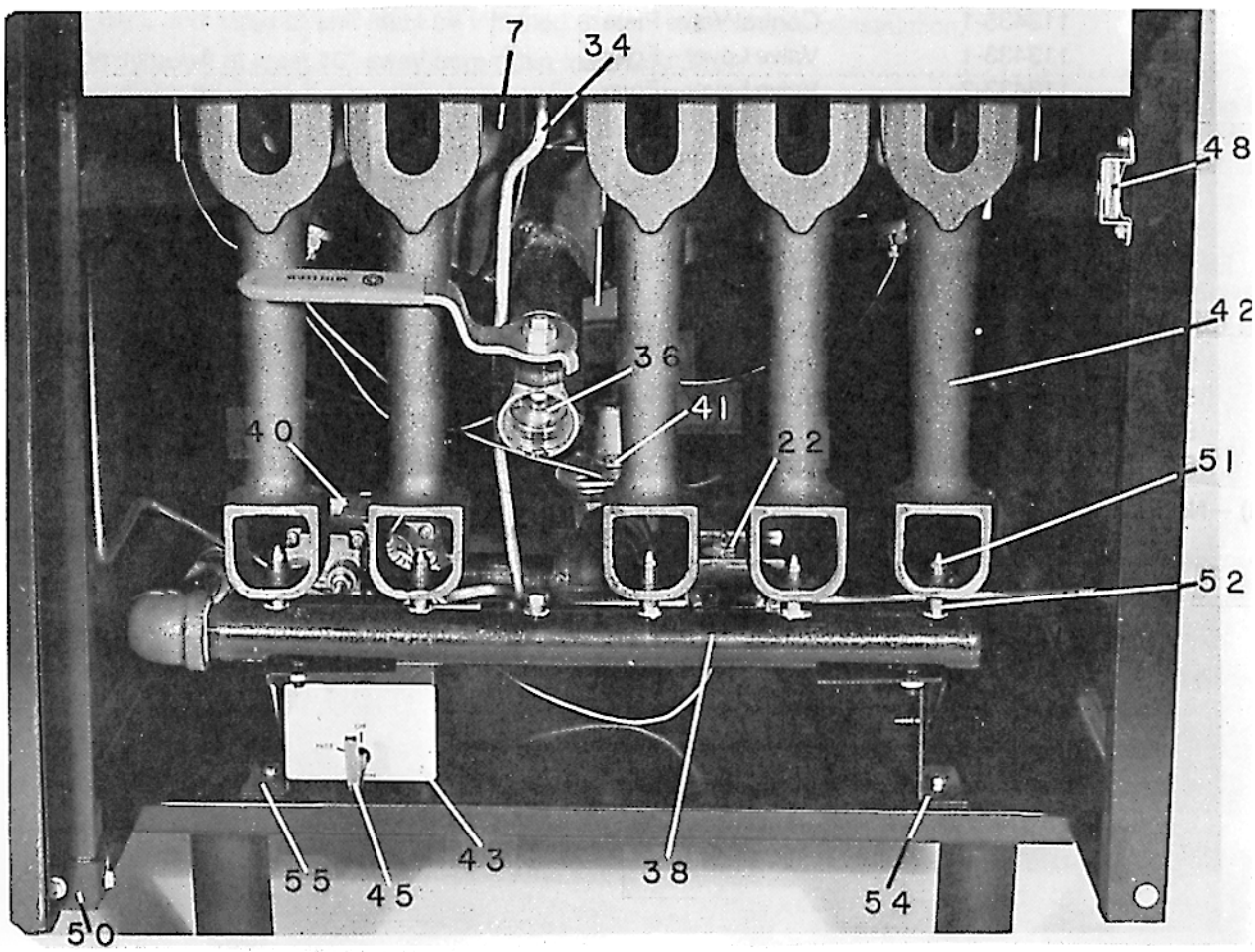
ITEM NO.	PART NO.	DESCRIPTION		QUANTITY 7594G	QUANTITY 7595G
6	110722-G2	Tank Assembly		1	—
7	110723-G2	Tank Assembly		—	1
22	110840-2	Hi Limit Control		1	1
30	110718-1	Drain Pipe (NS)		—	1
31	110718-2	Drain Pipe (NS)		1	—
32	112212-1	Pilot Burner (Nat)	SELECT	1	1
32A	112212-2	Pilot Burner (Propane) (NS)		1	1
33	113765-1	Pilot Tube Safety To Pilot		1	—
34	113765-2	Pilot Tube Safety To Pilot		—	1
35	110839-1	Thermopile (NS)		1	1
36	109408-1	Drain Valve – Ball		1	1
37	110696-G1	Sub Manifold		1	—
38	110696-G2	Sub Manifold		—	1
39	112196-G13	Control Assembly (Nat.)	SELECT	1	—
39A	112196-G14	Control Assembly (Propane)		1	—
40	112196-G17	Control Assembly (Nat.) (NS)	SELECT	—	1
40A	112196-G18	Control Assembly (Propane) (NS)		—	1
41	108279-10	Regulator (Nat.)	SELECT	1	1
41A	108279-3	Regulator (Propane) (NS)		1	1
42	110681-1	Burner		4	5
43	113435-1	Control Valve Plate		1	1
44	113433-1	Valve Lever – Fryer		1	—
45	113433-2	Valve Lever – Fryer		—	1
46	113434-1	Bracket Remote Control Rod (NS)		1	—
47	113434-2	Bracket Remote Control Rod (NS)		—	1
48	108834-1	Door Magnet		1	1
49	112779-6	Door Hinge Top (NS)		1	1
50	112780-3	Door Hinge Bottom		1	1
51	10901-42	Orifice (Nat.)	SELECT	4	5
51A	10901-51	Orifice (Propane)		4	5
52	110695-1	Orifice Extension		4	5
53	113028-1	Sub Manifold Bracket		1	—
54	113031-2	Sub Manifold Bracket Extension RT.		—	1
55	113031-3	Sub Manifold Bracket Extension LT.		—	1

(NS) – Not Shown

See Reference Photo Pg.24

REPLACEMENT PARTS (Cont.)





MANUAL ASSEMBLY: 114590-G1

I.S.P. MANUAL FOR

7400 & 7500 SERIES GAS FRYERS

SIGN	MANUAL 114590-G1 SUB NO.	SHEET PART NUMBER AFFECTED	DATE
DML	1		01-28-83
DML	2		01-01-84
DML	3		02-01-84
DML	4		05-01-85
DML	5	114590-8	04-01-88
DML	6	114590-1 thru -25	04-05-89